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(57) Abstract: Process for catalytically hydrogenating carbon-heteroatom double bonds, in particular for asymmetrically catalyti-
cally hydrogenating simple ketones, which includes the step of reacting the substrate with hydrogen in the presence of a hydrogenation
catalyst and of a base, characterized in that the hydrogenation catalyst is a 5-coordinate ruthenium complex which in each case has
a monophosphine ligand and a bidentate P-N ligand.

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